CLAIMS

1. An antibody or a functional fragment of an antibody comprising at least the variable domains of the heavy and light chains, characterized in that it binds specifically to the uracil-DNA-glycosylase inhibitor (Ugi) of the sequence SWISSPROT P14739 and in that it inhibits the binding between uracil-DNA-glycosylase (UDG) and its inhibitor, Ugi.

2. The antibody or antibody fragment as claimed in claim 1, characterized in that it is chosen from monoclonal antibodies, polyclonal antibodies and the Fab, Fv and scFv fragments.

3. The antibody as claimed in claim 2, characterized in that it is a polyclonal antibody obtained by immunizing an animal with a preparation of recombinant uracil-DNA-glycosylase inhibitor.

4. The use of an antibody or an antibody fragment as claimed in any one of claims 1 to 3, as antagonist of the binding between uracil-DNA-glycosylase and its inhibitor.

5. The use as claimed in claim 4, for decontaminating nucleic acid amplification reactions, in particular polymerase chain reactions.

6. A method for amplifying decontaminated nucleic acids, characterized in that it comprises the following steps:
a) incubation of a reaction mixture containing: a nucleic acid sample to be amplified, the reagents necessary for its amplification including deoxyuridine triphosphate nucleotides, uracil-DNA-glycosylase, uracil-DNA-glycosylase inhibitor, and

an anti-uracil-DNA-glycosylase inhibitor antibody or antibody fragment as claimed in any one of claims 1 to 3, at a temperature of between 25°C and 60°C, preferably at 37°C, for a sufficient time to allow the deglycosylation of the nucleic acids containing deoxyuridine, and

b) incubation of said mixture at a temperature of between 60°C and 98°C, preferably between 90°C and 98°C, for a sufficient time to allow the denaturation of the anti-uracil-DNA-glycosylase inhibitor antibody and the release of Ugi, and

c) amplification of the DNA under appropriate conditions.

7. The method as claimed in claim 6, characterized in that the incubation in steps a) and b) is carried out for less than one hour, preferably for 30 s to 30 min, preferably for 5 min to 10 min.

8. The method as claimed in claim 6, characterized in that the anti-uracil-DNA-glycosylase inhibitor antibody and the uracil-DNA-glycosylase inhibitor form a reversible complex.

9. A kit for decontaminating nucleic acid amplification reactions, characterized in that it comprises at least one antibody or an antibody fragment as claimed in claim 1 or claim 2, preferably in the form of a reversible complex with the uracil-DNA-glycosylase inhibitor.